

REMARKS

Claims 8-22 were previously pending in the application. This Amendment amends claims 8, 12-14, and 17 and cancels claim 11. Claims 9, 10, 15, 16, and 18-22 remain unchanged. Claims 8 and 14 are independent.

The Claimed Invention

An exemplary embodiment of the claimed invention, as recited by, for example, independent claim 8, is directed to a bellows-type collar for washing machines wherein the bellows-type collar comprises an inner, a central and an outer collar ring and is sealingly fixed to both the machine housing and the lye container in the area of the loading opening, and the inner collar ring is visible through a closure of the loading opening, wherein an annular stiffening element comprising a thickened area of the bellows-type collar is assigned to the visible inner collar ring, which stiffening element reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, and a non-visible section of the bellows-type collar, wherein an articulated section is disposed in the non-visible section which promotes deformation of the bellows-type collar in said non-visible section.

Another exemplary embodiment of the claimed invention, as recited by, for example, independent claim 14, is directed to a washing machine comprising a bellows-type collar at least partially surrounding the frontal loading opening, the bellows-type collar comprising an inner collar ring including an inner fixed edge coupled to the housing and extending inwardly toward the drum to an inner free edge, an outer collar ring disposed radially outwardly from the inner collar ring and including an outer fixed edge sealingly coupled to the lye container and extending outwardly toward the housing to an outer free edge, a central collar ring extending between the inner free edge and the outer free edge, and an annular stiffening element including an articulated section disposed near the inner free edge and restricting the spread of deformation forces from the central and outer collar ring on to the inner collar ring.

In conventional washing machines, any deformation of the collar, especially the inner collar ring, is clearly visible during spinning, which results in an ugly impression and may result in the user having the impression that the washing machine is not working correctly and cannot cope with the load of laundry. In addition, the creasing of the inner collar ring may result in noise known as so-called collar flapping occurring in the immediate vicinity of the transparent container, which may be disturbing to the user.

In stark contrast, the present invention provides an annular stiffening element to the visible inner collar ring, which reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, thereby reducing the deformation of the bellows-type collar visible to the user and reducing the accompanying noise during the operating state of a washing machine. See, e.g., page 2, lines 1-26.

The Rejections under 35 U.S.C. § 103

In the Office Action, claims 8, 10, 14-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kim et al reference (U.S. 2004/0103693). Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kim et al reference in view of the Deuring reference (U.S. 4,826,180). Claims 11-13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Kim et al reference in view of the Valent reference (U.S. 5,860,300).

Independent claims 8 and 14 are amended to incorporate the features of claim 11, thereby rendering moot the rejections over the Kim et al reference and the Deuring reference. Applicants respectfully request withdrawal of these rejections.

With respect to the rejection over the Kim et al reference in view of the Valent reference, Applicants respectfully traverse this rejection.

Applicants respectfully submit that none of the applied references discloses or suggests the features of the claimed invention including a bellows-type collar for washing machines wherein the bellows-type collar comprises an inner, a central and an outer collar ring and is sealingly fixed to both the machine housing and the lye container in the area of the loading opening, and the inner collar ring is visible through a closure of the

loading opening, wherein an annular stiffening element comprising a thickened area of the bellows-type collar is assigned to the visible inner collar ring, which stiffening element reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, and a non-visible section of the bellows-type collar, wherein an articulated section is disposed in the non-visible section which promotes deformation of the bellows-type collar in said non-visible section, as recited in independent claim 8.

As explained above, these features are important for providing an annular stiffening element to the visible inner collar ring, which reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, thereby reducing the deformation of the bellows-type collar visible to the user and reducing the accompanying noise during the operating state of a washing machine.

The Kim et al reference very clearly does not teach or suggest these features. Indeed, the Office Action specifically acknowledges that the Kim et al reference lacks the teaching of the claimed articulated section.

The Valent reference does not remedy the deficiencies of the Kim et al reference.

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. (M.P.E.P. § 2141.02(I)).

Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to modify the Kim et al reference to include the features of the Valent reference in order to arrive at the claimed invention as a whole.

The Valent reference discloses bellows (i.e., folds 16) in which multiple folds follow each other in series in a direction of a rotational axis of the drum. In contrast, the bellows of the Kim et al reference are Z-type bellows that extend radially and orthogonally from the rotational axis. Thus, the Valent reference discloses a completely different kind of bellows-type collar than the bellows of the Kim et al reference. One of ordinary skill in the art would not have had an apparent reason to combine the features of

the axial bellows of the Valent reference with the Z-type bellows of the Kim et al reference.

Indeed, the Office Action does not establish a reasonable basis for such a combination. Instead, the Office Action merely asserts that this modification would have been an obvious matter of design choice amounting to a mere change in size of a component.

Applicants respectfully submit that, however, that the alleged combination of the Kim et al reference with the Valent reference would amount to more than a mere change in size. Instead, the alleged combination would necessitate extensive modifications to the overall design of the references, particularly since these references are directed to completely different bellow types.

Moreover, if the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection. M.P.E.P. § 2144.04. In this case, Applicants clearly have demonstrated the criticality of the arrangement of the articulated section in the non-visible section which promotes deformation of the bellows-type collar in said non-visible section in order to reduce the deformation of the bellows-type collar visible to the user and reduce the accompanying noise during the operating state of a washing machine.

Assuming in arguendo that these references would have been combined, applicants respectfully submit that that the Valent reference fails to make up for the deficiencies of the Kim et al reference.

Contrary to the assertions in the Office Action, the Valent reference does not teach or suggest anything at all that is even remotely related to an articulated section disposed in the non-visible section which promotes deformation of the bellows-type collar in said non-visible section, as recited in independent claim 8.

Instead, the axial bellows 16 are enclosed between the inner end 14 and cylindrical band 15. The elements 14 and 15 do not function as bellows since these elements have a thickness that is much greater than the thickness of the bellows 16. As shown in Figure 4, the transition from bellows 16 to each of the elements 14 and 15 is

smooth and without any sections that could function like the articulated section of the present invention. Thus, the Valent reference does not teach or suggest an articulated section, as claimed.

In stark contrast to the teachings of the Valent reference, the present invention includes an inner, a central and an outer collar ring and is sealingly fixed to both the machine housing and the lye container in the area of the loading opening, and the inner collar ring is visible through a closure of the loading opening, wherein an annular stiffening element comprising a thickened area of the bellows-type collar is assigned to the visible inner collar ring, which stiffening element reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, and a non-visible section of the bellows-type collar, wherein an articulated section is disposed in the non-visible section which promotes deformation of the bellows-type collar in said non-visible section

None of the applied references discloses or suggests at least these features of independent claim 8.

As explained above, these features are important for providing an annular stiffening element to the visible inner collar ring, which reduces any spreading of deformation forces from the central and outer collar ring on to the inner collar ring, thereby reducing the deformation of the bellows-type collar visible to the user and reducing the accompanying noise during the operating state of a washing machine.

Applicants respectfully request withdrawal of this rejection.

Independent claim 14 recites somewhat similar features as independent claim 8. Applicants respectfully submit that the applied references also fail to disclose or suggest the subject matter defined by independent claim 14.

For example, independent claim 14 is directed to a washing machine comprising a bellows-type collar at least partially surrounding the frontal loading opening, the bellows-type collar comprising an inner collar ring including an inner fixed edge coupled to the housing and extending inwardly toward the drum to an inner free edge, an outer collar ring disposed radially outwardly from the inner collar ring and including an outer fixed

edge sealingly coupled to the lye container and extending outwardly toward the housing to an outer free edge, a central collar ring extending between the inner free edge and the outer free edge, and an annular stiffening element including an articulated section disposed near the inner free edge and restricting the spread of deformation forces from the central and outer collar ring on to the inner collar ring.

For the same reasons as those set forth above with respect to claim 8, none of the applied references discloses or suggests the subject matter defined by independent claim 14.

Moreover, none of the applied references discloses or suggests all of the features of the dependent claims. For example, none of the references discloses the claimed arrangement of the bead, the articulated section, and the nose as defined, for example, by dependent claims 15-22.

Applicants respectfully request withdrawal of this rejection.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of Claims 8-10 and 12-22 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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